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this species, and fifteen larger specimens in the American Museum of Natural History's collections were examined. They had dorsal soft rays 35 (4 individuals), 36 (3), 37 (4), 38 (4); anal soft rays 37 (2), 39 (3), 40 (4), 41 (6). The smallest of them were already somewhat elongate; two of 120 mm., with depth 2.6 and 2.7, one of 98 mm. with the same 2.8.

*Auchenopterus fasciatus*. A small individual, 30 mm. to base of caudal from near Miami, Florida, has dorsal rays all spinous, lacking the single last soft ray generally characteristic of the genus. A slightly larger specimen (33 mm.) in our collections from Key West, February 28, 1910, Tekla Expedition, shows the same condition. Reference to Steindachner's type description of *fasciatus* confirms the identity of these specimens. It should be noted that Steindachner does not specifically mention the soft ray though he places *fasciatus* in the same genus with his *marmoratus* which, by comparison with an excellent type figure, is unquestionably the same as our *marmoratus* material which possesses such a ray. This difference seems of generic value, and there being apparently no generic name available for it, Tekla,<sup>1</sup> new genus, is here proposed, with *Cremnobates fasciatus* Steindachner as type.—J. T. NICHOLS, *New York, N. Y.*

## A NOTE ON THE BREEDING HABITS OF TEGU.

In a large (about 50 cm. diameter) termite nest, located in a fork of a small tree about seven feet from the ground, were found six eggs of the Tegu (*Tupinambis nigropunctatus* Spix). The nest had been cut open, with the idea of using it as fish bait, and was brought to the Tropical Research Station in British Guiana by a native, on June 26. One of

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<sup>1</sup> Named for the yacht "Tekla."

the eggs had been cut open by the man's "cutlas," but the inclosed embryo was secured and preserved. According to this collector, he had found as many as twelve eggs in one nest, and as few as two. While the finding of these eggs is not a frequent occurrence, they are reported more common about sugar estates.

It is supposed that the Tegu claws a hole into the center of the nest, a seemingly difficult operation on account of the hard, woody character of the "carton" which is made of vegetable material mixed with secretions of the termites, and into this cavity the eggs are laid, some end-up, others side-up. The termites then fill up the cavity again until the eggs are closely built into the mass of carton. How the young lizards on hatching ever escape from such a nest it is difficult to imagine. It is possible that the mother returns at the proper time and digs them out, as is probably done by the female alligator with her young. In the latter animal the young make a curious squeaking sound, just before hatching, that may be heard for a considerable distance. Possibly the baby Tegu calls its mother in the same way to its assistance, though it would seem that the material of the termite nest would pretty effectually muffle the sound.

According to the natives the Tegus always lay their eggs in the nests of termites. Gadow (Camb. Nat. Hist., vol. Amp. & Rep., p. 549) says: "They retire into burrows and deposit their hard-shelled eggs in the ground." *The egg.* Two of the eggs were too badly broken when received to measure. The other four had the following measurements in millimeters:  $49 \times 36$ ;  $48.5 \times 36$ ;  $51.8 \times 34.5$ ;  $49.1 \times$  — Their weights in grams ranged from 34.2 to 35.2.

The eggs are perfect ellipses, like the eggs of the alligator, the two ends being alike. The shell is firm but leathery, not *hard* as described in the above quotation from Gadow; it had been coated all over

by the termites with a thin, rough, dark-brown layer of carton; when this is peeled off the shell is exposed, stained a brownish-yellow color; occasional spots show the pure white color of the shell as it doubtless was all over when laid. Examined under low magnification, the surface of the shell is seen to be cut up into tiny, irregular, diamond-shaped areas by a network of grooves. This pattern, reversed, may be seen on the under side of the pieces of thin carton when peeled off, as may easily be done, with a knife-blade. Although of leathery texture, the shell is partly calcareous and effervesces when treated with hydrochloric acid.

The yolk attached to the 15.5 cm. embryo was about 25 mm. or less in diameter. It was of a strong yellow color and of the consistency of fairly thick cornstarch as prepared for food, so that it did not flow when the vitelline membrane was ruptured, being thus in strong contrast to the rather pale and very watery yolk of the alligator's egg.

The albumen is clear and viscid as in the alligator's egg. Owing to the late stage of development, the albumen in the eggs under discussion was nearly gone, too little remaining to determine whether chalazae were present or not.

*The embryo.* Three embryos, including the one accidentally liberated in cutting open the nest, were removed at once from the eggs; they measured respectively: total length, 195 mm., tail, 120 mm.; total length, 195 mm.; tail, 125 mm.; total length, 155 mm.; tail, 100 mm.

The first embryo was a male with everted intromittent organs; the other two were apparently females. Extending from the umbilicus were two large and one small blood vessels, connected with the yolk; just caudad to these were two smaller vessels, coiled about each other and connected with the allantois.

A fourth embryo was removed from the egg on July 7; it had a total length of 205 mm., tail, 130 mm.

The fifth and sixth embryos were removed from the eggs on July 15. Both were dead, but seemed in good condition and were preserved. Number five had a total length of 180 mm., tail 110 mm.; it was a male with both intromittent organs everted. Number six were removed and preserved with the yolk and membranes attached, and hence could not be measured; it was a male with both intromittent organs everted. The yolk in number five was quite dry and shrivelled.

Soon after removal from the termites nest the eggs began to shrivel, and, in spite of the fact that they were kept wrapped in damp cotton, they could not be preserved alive, and the last two embryos, as noted above, were dead when removed from the egg nineteen days after the latter had been taken from the termites nest.—ALBERT M. REESE, *West Virginia University*.

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For a further account of the egg-laying of the Tegu see Hagmann, G., 1907. Zool Jahrb., Syst. XXIV, pp. 310-313.—G. K. N.

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EDITED by J. T. NICHOLS, American Museum of Natural History.